Installation Manual

Set up and user manual for the
VPC5-704CME
VPC5-700CME
VPC5-704DNE
VPC5-700DNE
cameras

Before You Begin
Read these instructions before installing or operating this product.

Note: This installation should be made by a qualified service person and should conform to local codes.
This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use

Only use this product for its designated purpose; refer to the product specification and user documentation.

Customer Support

For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:

Norbain Ltd
210 Wharfedale Road, IQ Winnersh Triangle, Wokingham, Berks RG41 5TP

UK +44 (0) 118 912 5000 / Netherlands +31 (0) 76 579 2577 / Belgium +32 (0) 3 369 8080
South Africa +27 (0) 11 887 1546 / Portugal +351 234 301900 Spain +34 91 503 06 78
Middle East +971 4 881 14332 / Rest of world +44 118 912 5000

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Boldface or button icons highlight command entries. The following **WARNING, CAUTION** and **Note** statements identify potential hazards that can occur if the equipment is not handled properly:

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* **WARNING:**
Improper use of this equipment can cause severe bodily injury or equipment damage.

**** Caution:**
Improper use of this equipment can cause equipment damage.

Note: Notes contain important information about a product or procedure.

RoHS Announcement

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

CE Mark

This apparatus is manufactured to comply with the radio interference. A Declaration of Conformity in accordance with the following EU standards has been made. The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 2004/108/ EC, the CE Marking Directive 93/68 EEC and all associated amendments.

* This symbol indicates electrical warnings and cautions.

** This symbol indicates general warnings and cautions.

NORBAIN LTD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:

To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.

CAUTION

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

IMPORTANT SAFEGUARDS

1. **READ AND RETAIN INSTRUCTIONS**
   Read the instruction manual before operating the equipment.
   Retain the manual for future reference.
2. **CLEANING**
   Turn the unit off and unplug from the power outlet before cleaning. Use a damp cloth for cleaning. Do not use harsh cleansers or aerosol cleaners.
3. **ATTACHMENTS**
   Do not use attachments unless recommended by manufactured as they may affect the functionality of the unit and result in the risk of fire, electric shock or injury.
4. **MOISTURE**
   Do not use equipment near water or other liquids.
5. **ACCESSORIES**
   Equipment should be installed in a safe, stable location. Any wall or shelf mounting accessory equipment should be installed using the manufacture's Instructions. Care should be used when moving heavy equipment. Quick stops, excessive force, and uneven surfaces may cause the equipment to fall causing serious injury to persons and objects.
6. **VENTILATION**
   Openings in the equipment, if any, are provided for ventilation to ensure reliable operation of the unit and to protect if from overheating. These openings must not be blocked or covered
7. **POWER SOURCES**
   The equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied at the installation location, contact your dealer. For equipment designed to operate from battery power, refer to the operating instructions.
8. **GROUNDING OR POLARIZATION**
   Equipment that is powered through a polarized plug (a plug with one blade wider than the other) will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. Do not defeat the safety purpose of the polarized plug.

   Alternate Warning: If the equipment is powered through a three-way grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. Do not defeat the safety purpose of the grounding-type plug.
   If your outlet does not have the grounding plug receptacle, contact your local electrician.
9. **CORD AND CABLE PROTECTION**
   Route power cords and cables in a manner so to protect them from damage by being walked on or pinched by items places upon or against them.
10. **LIGHTNING**
    For protection of the equipment during a lightning storm or when it is left unattended and unused for long periods of time, unplug the unit from the wall outlet. Disconnect any antennas or cable systems that may be connected to the equipment.
    This will prevent damage to the equipment due to Lightning or power-line surges.

11. OVERLOADING

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

12. SERVICING

Do not attempt to service the video monitor or equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

13. DAMAGE REQUIRING SERVICE

Unplug the equipment from the wall outlet and refer servicing to qualified service personnel under the Following conditions:

A. When the power supply cord or the plug has been damaged.
B. If liquid has spilled or objects have fallen into the Unit.
C. If the equipment has been exposed to water or other liquids.
D. If the equipment does not operate normally by following the operating instructions, adjust those controls that are covered by the operating instructions as Improper adjustment for other controls may result in damage to the unit.
E. If the equipment has been dropped or the casing is damaged.
F. When the equipment exhibits a distinct change in performance.

14. REPLACEMENT PARTS

When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or that have the same characteristics as the original part.
Unauthorized substitutions may result in fire, electric shock, or other hazards.

15. SAFETY CHECK

Upon completion of any service or repairs to the equipment, ask the service technician to perform safety checks to verify that the equipment is in proper operating condition.

16. FIELD INSTALLATION

The installation of equipment should be made by a qualified service person and should conform to all local codes.

17. CAUTION - THESE SERVICING

INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.

18. Use certified/Listed Class 2 power supply transformer only

CE COMPLIANCE STATEMENT

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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INTRODUCTION

Features:

- 700TVL Colour & Monochrome resolutions
- 1/3" Sony EXview HAD CCD II with Effio ‘e’ DSP
- 0.15Lux (Colour) @ F1.2 Sensitivity (CME version)
  0.15Lux (Colour) 0.01 Lux (B/W) @ F1.2 Sensitivity (DNE version)
- Auto electronic shutter [1/50~1/10,000] and manual electronic shutter modes
- Day & Night - Auto (delay) / Colour / BW
- OSD - On Screen Display (via tactile switch)
- ATR (Adaptive Tone Reproduction)
- AGC (Auto Gain Control)
- 2D-DNR function (Digital Noise Reduction)
- Auto and manual white balance modes
- BLC (Back Light Compensation)
- HLC (Peak White Inversion)
- 4 Privacy zones (colour / mosaic)
- 4 Motion detection zones
- Functions (Mirror, Brightness, Sharpness, Hue, Contrast, Gain)
- Multi language support: English, Japanese, German, French, Russian, Portuguese, Spanish
- 12VDC or 24VAC operation (on 704 models only)
  (If using DC 12V power adaptor, Please use a power supply capable of supplying over 600mA.)
- 100 – 240VAC operation (on 700 models only)
- Use Certified Listed Class 2 power source only.

CONTENTS OF PACKAGE

Installation of the camera must be performed by qualified service personnel in accordance with all local and national electrical and mechanical codes.

Carefully remove the camera and its accessories from the carton and verify that they were not damaged in shipment.

The content of the package includes:

1. Camera
2. Mini-DIN connector (for video-or dc-type auto-iris lens)
3. ‘C’ ring adapter
4. This manual

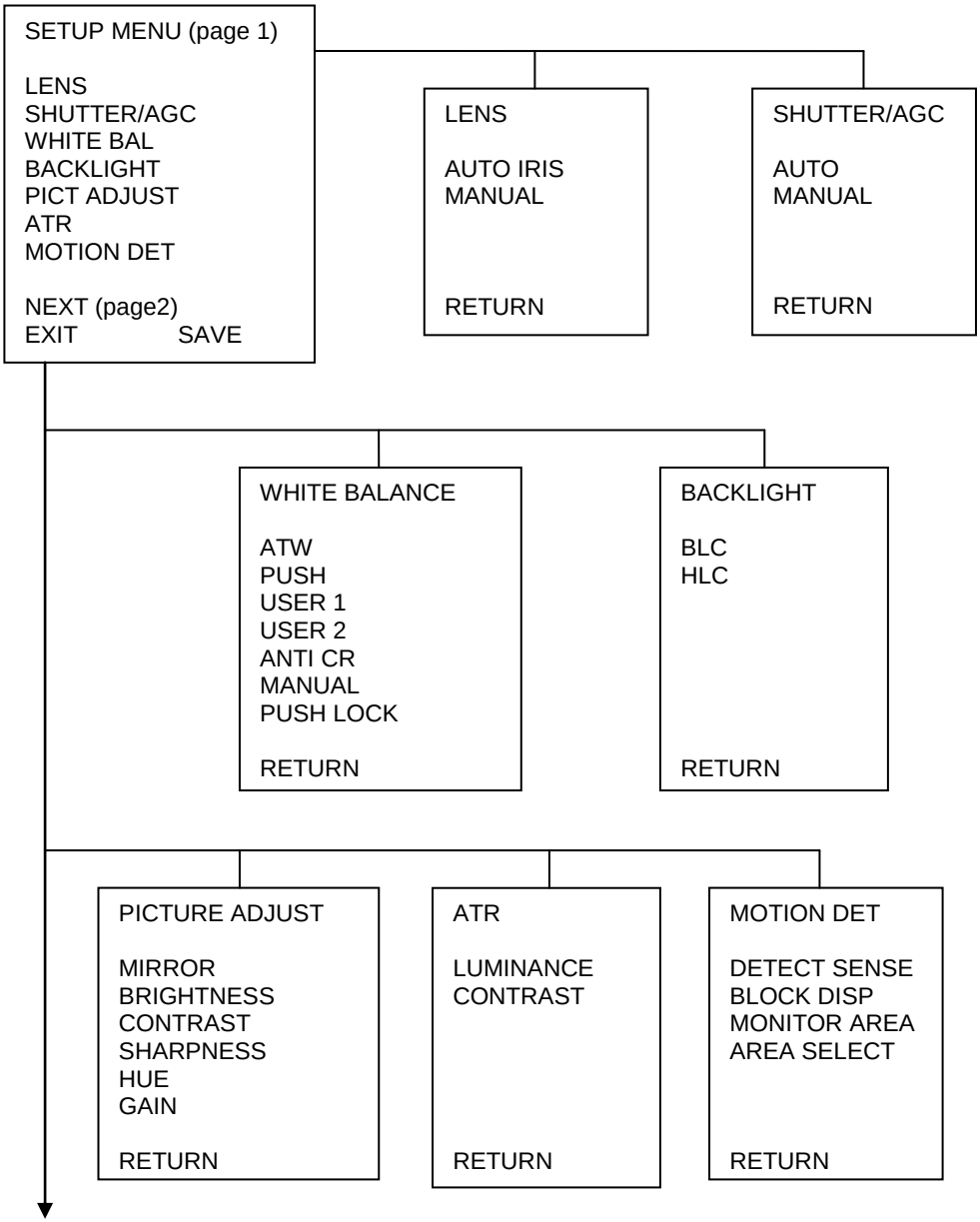
OSD ADJUSTMENT

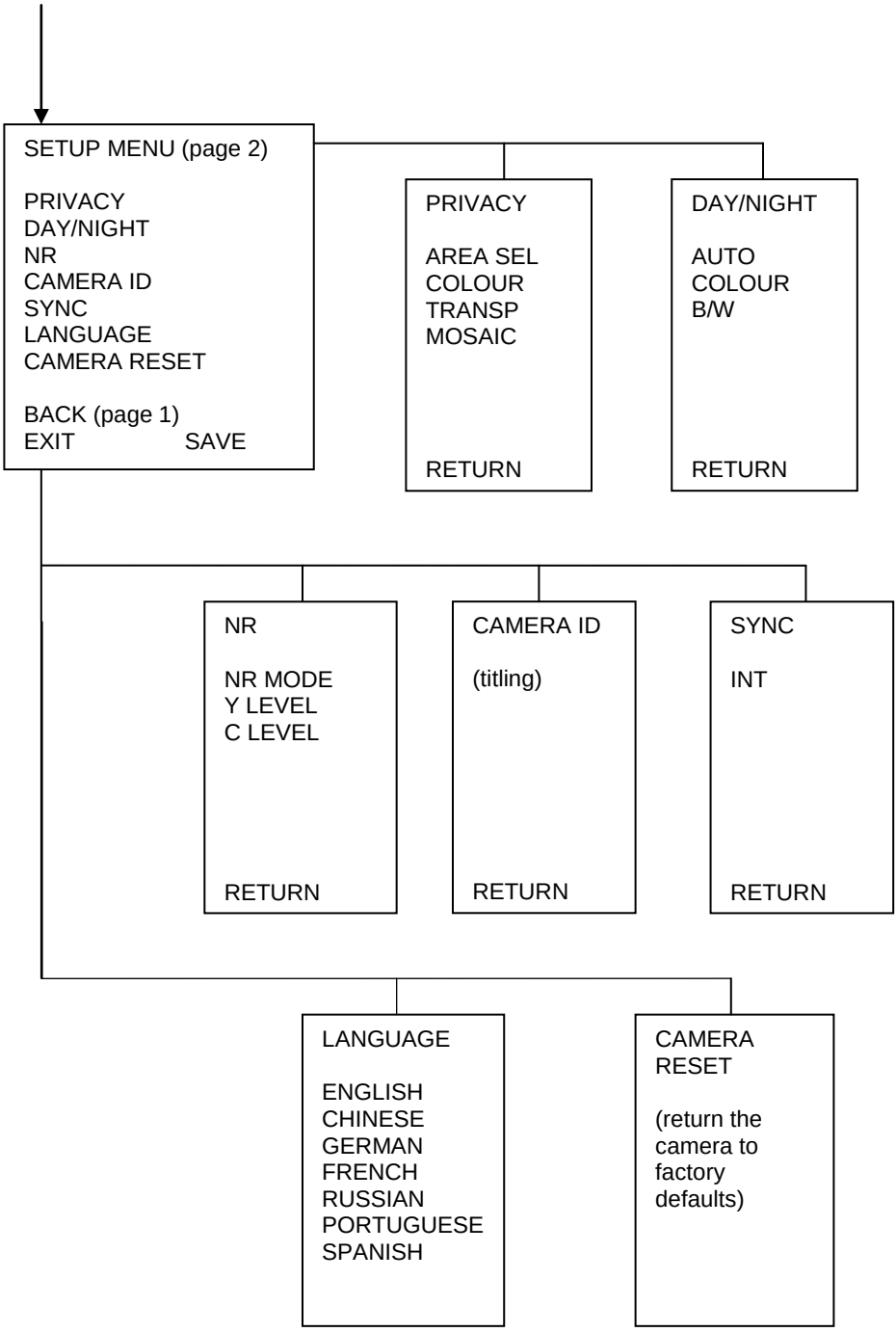
The buttons on the rear of the camera allows both navigation and changes to the OSD Menu. To ‘enter’ into the OSD menu push the centre button and navigate using the up, down, left and right buttons. If there is an arrow to the right of the menu function, this denotes that there is an accessible sub menu function and this is accessed via the ‘enter’ command with the tactile switch.

Low voltage

Mains Voltage

OSD MAIN MENU TREE




SETUP MENU (page 2)
PRIVACY
DAY/NIGHT
NR
CAMERA ID
SYNC
LANGUAGE
CAMERA RESET
BACK (page 1)
EXIT
SAVE
PRIVACY
AREA SEL
COLOUR
TRANSP
MOSAIC
RETURN
DAY/NIGHT
AUTO
COLOUR
B/W
RETURN
NR
NR MODE
Y LEVEL
C LEVEL
RETURN
CAMERA ID
(titling)
RETURN
SYNC
INT
RETURN
LANGUAGE
ENGLISH
CHINESE
GERMAN
FRENCH
RUSSIAN
PORTUGUESE
SPANISH
CAMERA RESET
(return the camera to factory defaults)

OSD MENU SETTINGS

LENS

MANUAL
Manual lens only

AUTO
TYPE (DC / VIDEO)
Sets the type of mechanical iris
(Video lens is not supported)
MODE (OPEN / CLOSE / AUTO)
Sets the type of control to be applied over the mechanical iris.
SPEED (0~255)
Sets the convergence speed of the mechanical iris.

SHUTTER/AGC

AUTO
HIGH LUMINANCE
MODE (SHUT / SHUT+AUTO IRIS)
(only SHUT can be selected if LENS is in MANUAL mode)
BRIGHTNESS (0~255)
Adjusts the brightness level

LOW LUMINANCE
MODE (AGC / OFF)
Auto Gain Control on or off
BRIGHTNESS (x0.25 / x0.50 / x0.75/ x1.00)
Amount of AGC applied in low lighting conditions

MANUAL
MODE (SHUT+ AGC / OFF)
Auto gain control
SHUTTER
Select the shutter speed (1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000)
AGC
Sets the AGC gain applied [dB] for ME (manual exposure)
(6, 12, 18, 24, 30, 36, 42, 44.8dB)

WHITE BAL

ATW (Auto Trace White balance)
SPEED (0~255)
Adjusts the pull-in speed of ATW.
DELAY CNT (0~255)
Sets the time-based hysteresis of ATW.
ATW FRAME (X0.5/X1/X1.5/X2)
Sets the pull-in frame magnification.
ENVIROMENT (indoor/outdoor)
Preset for either indoor or outdoor applications of the ATW

PUSH
Wide range Auto White Balance mode (AWB)

USER1 & 2
Both USER 1 & 2 can be individually set up for specific applications. The gain values for USER 1 are biased towards the camera being installed outdoors and USER 2 setting are biased towards being installed internally.
B-GAIN (0~255)
R-GAIN (0~255)

ANTI CR
Colour rolling suppression ideal for internal use when fluorescent lighting is present.

MANUAL
The B and R gain values for manual WB are set on this screen.
LEVEL (14~57)

PUSH LOCK
PUSH LOCK fixes the white balance and should only be used when there is no change in the illumination level. If there are any changes in illumination this must be reset by pushing the 'enter' button again to adjust to new illumination level.

BACKLIGHT

OFF / BLC / HLC
BLC – Reduces over illumination of back lit subject
HLC – Inverts over bright white light to black (Peak White Inversion)

PICT ADJUST

MIRROR	(ON/OFF) Inverts image horizontally.
BRIGHTNESS	(0~255) Sets the screen brightness.
CONTRAST	(0~255) Sets the screen contrast.
SHARPNESS	(0~255) Sets the screen sharpness.
HUE	(0~255) Adjusts the hue.
GAIN	(0~255) Adjusts the gain.

ATR

ATR (Adaptive Tone Reproduction) allows adjustment of the image to assist with widely contrasting scenes of view.

LUMINANCE (LOW / MID / HIGH)
Sets the extent of the luminance compression
CONTRAST (LOW / MIDLOW / MID / MIDHIGH / HIGH)
Sets the extent of the contrast enhancement

MOTION DET

DETECT SENSE (0~127)
Sets the motion detection sensitivity (0=low sensitivity, 127=high sensitivity)
BLOCK DISP (OFF / ON / ENABLE)
Applies a motion block trace in the selected area. To define the area, select Enable and push centrally on the tactile switch. Use the tactile switch to navigate to the blocks you want to **Disable** and not include in motion trace. To return to the menu, push and hold central tactile switch for 2secs and release.
MOTION AREA (ON/OFF)
Enables/disables the motion detection
AREA SEL (1~4)
Selects the motion detection area
TOP (0~244)
0=top
BOTTOM (0~244)
244=bottom
LEFT (0~474)
0=left
RIGHT (0~474)
474=right

PRIVACY

AREA SEL (1~4)
Selects the motion detection area
TOP (0~244)
0=top
BOTTOM (0~244)
244=bottom
LEFT (0~474)
0=left
RIGHT (0~474)
474=right
COLOUR (1~8)
Sets the colours of the privacy zones.
TRANSP (0.00/0.50/0.75/1.00)
Sets the transparency of the privacy zone area if colour is selected.
MOSAIC (ON/OFF)
Sets the mosaic function as the privacy to ON or OFF.
(Note: when mosaic ON, transparency needs to be set at 0.00. Privacy zones can only be 1 colour OR mosaic and not mixed)

DAY/NIGHT

AUTO
BURST (ON/OFF)
Allows the colour burst signal in monochrome mode to be removed
DELAY CNT (0-255 secs)
Sets the hysteresis time before switching between colour/mono & mono/colour, to reduce the 'hunting' effect.
DAY->NIGHT (0-255)
Sets the threshold for switching from day to night operation.
NIGHT->DAY (0-255)
Sets the threshold for switching from night to day operation.
COLOUR (colour only operation)
B/W (monochrome only operation)
BURST (ON/OFF)
Allows the colour burst signal in monochrome mode to be removed.

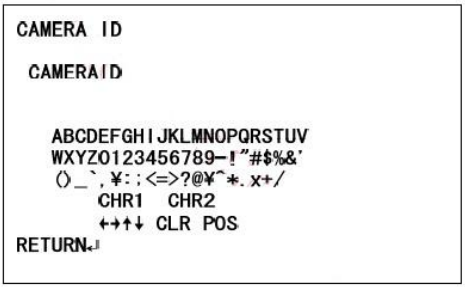
NR (2D-DNR)

This is used to remove noise from the image in low light conditions when AGC is applied.

NR MODE (OFF, Y, C, Y/C)
Sets the 2D NR filter mode.
Y LEVEL (0~15)
Sets the Y filter (Luminance) strength.
C LEVEL (0~15)
Sets the C filter (Chrominance) strength.

CAMERA ID

Sets the camera ID to ON or OFF. A title of 26 characters per line can be applied.



Use the tactile switch to navigate the cursor. Pushing centrally on the tactile switch will allow selection of that character.

The arrows at the bottom allow you to move the cursor without changing the character.

CHR1
Allows you to edit line 1
CHR2
Allows you to edit line 2
CLR
Inserts a space
POS
Allows you adjust the location of the camera ID title display.

SYNC

INT – Internal synchronization only, on both LV and Mains models.

LANGUAGE

LANGUAGE select between:
English, Japanese, German, French, Russian, Portuguese & Spanish.

CAMERA RESET

CAMERA RESET - Returns the camera to the factory default settings.

SAVE ALL

SAVE ALL - Saves all the changes made in the menu.

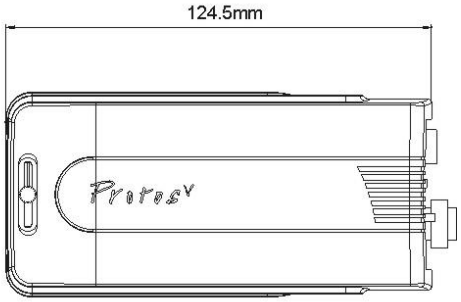
EXIT

EXIT – Exits the menu and does not save changes made.

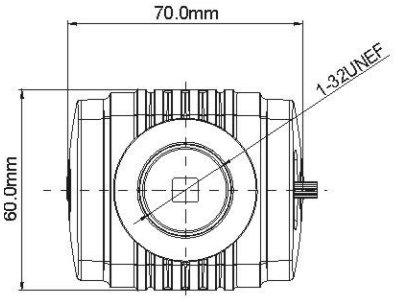
SPECIFICATIONS

MODEL			**704CME**	**704DNE**	**700CME**	**700DNE**
GENERAL	Resolution		700TVL (colour and monochrome)			
	Image sensor		1/3″ SONY EXview HAD CCD II			
	Total pixels		1028(H) x 596(V)			
	Effective pixels		976(H) x 582(v)			
	Scanning system		2:1 Interlace			
	Scanning freq		PAL: 15.625KHz(H) x 50Hz(V)			
	Sync. system		Internal			
	Electronic shutter		1/50~1/10,000 sec			
	Min. illumination (@F1.2)		Colour 0.15Lux	Colour 0.15Lux Mono 0.01Lux	Colour 0.15Lux	Colour 0.15Lux Mono 0.01Lux
	IR Cut Filter		Fixed	Mechanical	Fixed	Mechanical
	Video output		1.0Vp-p (75 ohm, composite)			
	S/N Ratio		50dB (AGC off)			
	OSD Control		Tactile buttons on rear of camera			
	FUNCTION	ATR	Luminance (L / M / H), Contrast (L / LM / M / MH / H)			
		Backlight	OFF / BLC / HLC			
		Day / Night	Auto (delay 0~255 secs) / Colour / BW (BW or BW with BURST)			
		Motion Det	On / Off (4 areas)			
		Privacy	On (colour / mosaic) / Off (4 zones)			
		White Balance	ATW / PUSH / USER1 / USER2 / ANTI CR / MANUAL / PUSH LOCK			
		AGC	On / Off			
		Exposure	Auto Iris / Auto Iris + Electronic Shutter			
		Brightness	0 ~ 255 steps			
		Contrast	0 ~ 255 steps			
		Sharpness	0 ~ 255 steps			
		Hue	0 ~ 255 steps			
		Gain	0 ~ 255 steps			
		NR	OFF / Y / C / Y,C			
		Mirror	On / Off			
		Camera ID	2 x 26 characters On (edit, position) Off			
		Language	ENG / JAP / GER / FRE / RUS / POR / SPA			
POWER	Power source		12VDC±15% / 24VAC±10%		100-240VAC~50/60Hz	
	Consumption		3.5W (0.3A)		4W (0.055A)	
CONNECTION	Power input		2-pin terminal block		AC Cord	
	Video output		BNC connector			
	Operating Temp		-10°C ~ +50°C			
	Storage Temp		-10°C ~ +60°C			
	Operating Humidity		0 ~ 90% (non-condensing)			
	Dimensions		70(W) x 60(H) x 124.5 (L) mm (unit) 280(W) x 70(H) x 140(D) mm (boxed)			
	Weights		252g (net) 410g (gross)			

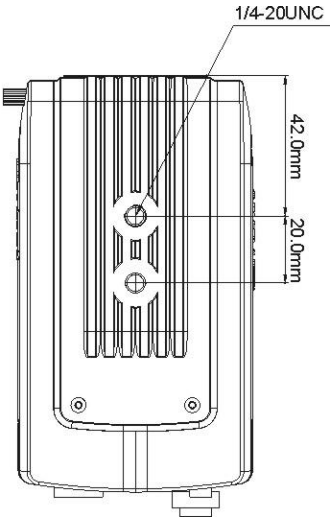
DIMENSIONS



SIDE VIEW



FRONT VIEW



TOP VIEW

Manual version V1.1
(This manual is subject to change without notice)